O. H. M. S.

To Gerald Deputy Minister.

## LABORATORY

OF THE

## INLAND REVENUE DEPARTMENT

OTTAWA, CANADA

BULLETIN No. 111

OLIVE OIL



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# INLAND REVENUE DEPARTMENT OTTAWA, CANADA

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### OLIVE OIL

OTTAWA, Ont., October 19, 1905.

W. J. GERALD, Esq., Deputy Minister of Inland Revenue.

SIR,—In accordance with your instructions a collection of samples of olive oil (salad oil) was made in the months of August and September last. A report concerning these oils has been addressed to me by Mr. A. McGill, who, during my absence, was Acting Chief Analyst, which report I beg now to transmit, recommending its publication as Bulletin No. 111.

I have the honour to be, sir, Your obedient servant,

> THOMAS MACFARLANE, Chief Analyst.

> > OTTAWA, Ont., October 18, 1905.

Thos. Macfarlane, Esq., Chief Analyst.

Dear Sir,—I beg to hand you a report upon 108 samples of salad oils, with accompanying tables.

Olive oil is a very important food in the countries of Southern Europe and although for the most part replaced by butter in Canada, is still largely in use for the making of salads. The ordinary purchaser of salad or table oil, supposes himself to be buying olive oil. The terms 'Olive Oil' and 'Salad Oil' are synonymous with most people.

On account of its cheapness cotton seed oil is largely substituted for olive oil by purveyors; and it is quite certain that many retail dealers furnish cotton seed oil to their customers without knowing that they do so. The difficulty is increased by the fact that cotton seed oil is frequently put up in bottles which resemble the peculiar form long adopted by certain large manufacturers of olive oil, and even the labels are made to appear very similar. An example in point is the following: in which it is

BUL. 111-11

quite apparent that a studied attempt is made to simulate the label of Ba:ton  $\alpha$  Guestier.





While it is certain that cotton seed oil lacks the peculiar flavour of olive oil, it is probable that, so far as food value goes, it may be little inferior to that article. Certain highly refined grades of cetton seed oil may be regarded as valuable foods; and as these take the place of olive oil in the making of salads, it is perhaps not unnatural that they should be termed salad oils. It is, however, much to be regretted, that such brands of cotton seed oil are not sold under some characteristic name, such as cotton seed salad oil, thus making their fraudulent sale impossible.

When a salad oil is asked for, the sale of cotton seed oil, properly refined, cannot be called adulteration; but when the article offered is plainly named as olive oil, the substitution of cotton seed oil in whole or in part is, of course, a case of adulteration.

The accompanying tables give the results of examination of 108 samples of salad oils. Of this number 84 were sold as olive oil; and 24 were merely termed 'Salad Oil' by the vendor. Without exception, these last were found to be cotton seed oil. Of the 84 samples sold as olive oil, 16 are found to be cotton seed oil, and, of course, these fall into the class 'Adulterated under the Act'. Of the remainder, two give somewhat doubtful reactions, probably due to long keeping. The remaining 66 samples are genuine olive oil. The samples now reported may be classified as follows:—

Genuine olive o	il		 	66	samples.
Doubtful "			 	2	11
Cotton seed oil,	sold as	salad oil	 	24	**
				-	
		Total		109	

Of course, only those of the last class can be legally considered as adulterated.

Yours truly,

A. McGILL.

October 18, 1905.

Table L.--INSPECTION OF OLIVE OIL (SALAD OIL)-AUGUST, 1905.

Institute of the Control					Brand of oil, 'Vestal.	" , Incor.								Lucea.
Name and Address of Manufacturer	as given by Vendor.	•	Brown & Webb, Halifas.  Eazenby & Son, England  Crosse & Blackwell, England  Barton & Guestier, France.  C. H. Binks, Montreal.  Crosse & Blackwell, England  E. Lazenby & Son.  E. Lazenby & Son.		1 50 Imported by vendors from France	0 60 Lazenby's, London, England	E. & A. Jonas, Hanart Auzin (nord) et	0 60 Crosse & Blackwell, London, England	1 20 Henri Jonas & Co., Montreal, Que	0 90 Hudon, Hebert & Co	0 30 E. Loubon, Nice, France	0 60 T. B. Barker & Sons, 57 and 50 Deck St.,	C. H. Binks, Montreal, the	0 75 E. Lazemby & Son, Ltd., 18 Trinity St., London, England,
ĕ	Value.	e cts.	68884648686		1 30 1	0.00	1 65 1	0 60	1.36	96 0	0.30	800	0 45	0 75
Cost.	tity.		# :::::::::		3 btls.	573	2 89	:	:	:	:	:	:	:
Norman of Address of Vander		Pistrict of Nova Scatia-R. J. Waugh, Inspector.	27065 A. V. Rand, Wolfville, N.S. 27064 F. C. Churchill 27079 R. B. Adams & Co., Halfax. 27083 C. E. Choat & Co. 27084 H. W. Wentzell 27085 E. W. I resaue 27085 E. W. I resaue 27085 R. N. McDonald 27085 B. W. Chonald 27089 W. C. Anderson	District of New Brunswick— J. C. Ferguson, Inspector.	24056 The Canadian Drug Co., Ltd., 27 and	24059 W. A. Porter, 215 Union St., St. John,	24008 McPherson Bros., 181 Union St., St. John,	Thomas J. Dean, No. 80, cor. Wall St.	Vanwart Brow., cor. Charlotte and Duke	Puddington & Merritt, 55 Charlotte St.,	Estate of E. J. Smith, Main St., Shediar,	T. B. Barker & Sons, 57 and 59 Dock St.,	Ernes, N.B. McMichael, 49 Dock St., St.	0 24112 J. & F. Watson, 399 cor. Elm and Main 3 Sta. St. John N. B. north end
a're Yumber.	Collecto		27065 27064 27067 27095 27096 27096 27096		24056	24059	24068	24071	24064	2,1067	24082	24110	34111	24112
'umber.	Ferial 1		-884661-886		-	61	٥٠,	-	2	9	1-	œ	6	-
Nature	Sample.		Olive		Aug. 15 Olive oil (salad)	16 Olive oil (salad)	18 Olive oil		" 21		42	5		2 Olive oil (salad)
Date	Collec- tion.		A		Aug. 1	. 1				. 1	:	Sept.	=	=

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TABLE I.—INSPECTION OF OLIVE OIL (SALAD OIL)—AUGUST, 1905—Continued.

	Inspector's Report.						
Name and A	or Furnisher, as given by Vendor,		Brown & Webb, Halifax, N.S. Lyman, Sons & Co., Montreal. Evans & Son, Montreal. Lyman, Sons & Co., Montreal. Evans & Son, Montreal. Imperial Oil Co., Halifax Simpson Bros., Halifax Brown & Webb Imperial Oil Co.		Wm. Patterson, Montreal. Billehouse, Dillon & Co., Montreal. N. K. Fairteank Co., Montreal. Southern of Cie, Quebec. Southern Oil Co., Savamah. Henri Jonas, Montreal. C. Henke Co., Montreal. Henri Jonas Co., Montreal.		E. Loubon Milan, Montreal.  Evans & Sons. L. Chaput & fils. Not known.  Not known.  E. Loubon, Nice, France.  E. Loubon, Nice, France.  Barton & Guestier, Bordeaux, France.
e	Value.	& cts.	2228848828		2888558858	-	8458486
Coeff.	Quan-		ğ::::::::		- dog.	_	S bth.
	Name and Address of Vendon.	District of Prince Edward Island-	2499 J. G. Jamieson, Charlottetown 28203 A. W. Reddin 28206 G. E. Hughes 2821 John Kinglet, Georgetown 2821 John Kinglet, Georgetown 2821 John Kinglet, Georgetown 2822 Ruben Tuplin, Kensington 2822 Waugh & Steeves, Summerside 2822 P. N. Ennan	District of Queber - C. E. Roy, Inspector.	2 906 Ed. Morin & Co., Mountain Hill 2803; Drouin et frère, 37 St. Andre 2902; A. E. Vallerand, Quebec 2902; Peelere & Letallier, Quebec 2902; Peelere & Letallier, Quebec 2903; W. Brunet Cie, Quebec 2903; W. Brunet Cie, Quebec 2903; J. Buchanan, Levis. 2903; Turcotte et frère, Quebec 2903; G. Carrigan et fils, Three Rivers.	Inspector.	24768 F. Dion, Valleyfield. 24769 G. E. Brown, Pr. Fortune. 24770 Theophile Rose, Buckingham. 24772 A. Francuur & Cie. St. Jeronie. 24773 Julien Courtean, Nicolet. 24773 Julien Courtean, Nicolet.
	Collecto	- Marie			20000000000000000000000000000000000000		9855777 9855777
nedmi	N Iarras				~118400F-X00		-884001-
Nature	Sample.		12 Olive oi: 12 Olive oi: 12 Olive oi: 12 Olive oi: 13 Olive oi: 14 Olive oi: 15 Ol		25 Salad oil		Olive oil
Date	Collec-		A K K K K K K K K K K K K K K K K K K K		2 2 2 1 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1		Sept. 3223

	Namicle 2002; was wald as		mon quality.	Pure Lucca oil.	Labelled 'Olie Virgine Sold as olive oil.		Bulk oil.  Not sold as pure ohv · oil.  Not sold as pure olive oil.	
Baron & Gauthier Johnston A. Puget, Marseilles, France	0 20 Union Oil Co, Providence, R.I	Not known	Not	0 40 Crosse & Blackwell, Lendon, Eng	Not known		Oneen City Oil Co., Ottawa Not known Crosse & Blackwell, London, Eng. Lipten, London. Carifee Crosse & Blackwell, London, Eng. Not known Crosse & Blackwell, London, Eng.	
888	8	922	22	0 0	0 20		8888888888	22422
: : : m m m	1 pint.	:::		1 150	3 1 pint.			pint
24775 Pharmacie St. Hyacinthe, St. Hyacinthe. 24776 Pagnuelo & frères, St. Hyacinthe. 24777 O. Brodeur	District of Montreal—J. J. Coaligan, Inspector. 26821 P. Laurandeau, 159, St. Paul St.	26822 Dr. Lapalme, St. Anns, Bellevue, P.Q 28823 G. Daoust St. Antoine St. Montreal 26824 E. Masse, 41 St. Antoine St. Montreal	26825 A. D. Mann, 201 ". Reveale Guerrin, 2309 Notre-Dame, Mont.	20027 Co-operative Grocery Co., 233 St. Antoine St., Montreal. 20028 Murphy Brow., 2007 St. Catherine St.,	26829 Mur.dy Bros., 2507 St. Catherine St., Montreal. 26830 W. H. Chapman, 2601 St. Catherine St.,	District of Kingston-J. Hopen and A. E. Sanderson, Inspectors.	28402 Jos. Valiquette, 319 Dalhousie St., Ottawa 28404 W. H. Rogers, Rideau St., Ottawa, 28525 Hopkinson, Erock St., Kingston 28525 J. S. Herd-won, Brock St., Kingston 28527 Rigney v. Princess St. 28529 James V. n. n. 28529 J. Annes Kelly 28530 James Kelly 28531 D. Couper	District of "scento-4. E. Sanderson, "Arg. Inspector.  28413 J. Blood, 414 Verige St., Toronto. 28419 J. E. Morrish, 237 vonge St., Toronto. 28429 J. Lindah, 349 Vork St. 28429 Gibb Broa, 1174 Vor.
×20	-	2120 4	ကမ	t- 00	9 01		-8184091-005	-4840
	Aug. 24 Olive oil		:::	: :			16 Olive oil (salad).	25 Olive oil (salad). 25 " " " " " " " " " " " " " " " " " " "
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:::	Aug.	:::	::	: :	: :		Aug	Aug

TABLE I.—INSPECTION OF GLIVE OIL (SALAD OIL)—AUGUST, 1905—Concluded.

	Іпчрестої в Керогт.		Sylmar brand.	This sample was disputed after sample, had been	taken.
Name and Address of Manufecturer	or Furnisher, as given by Vendor.	Not known E. Loubon, Nice, France Not known J. Winer, wholesale druggist	Olive Growers Association, California. Sylmar brand. Lipton C., Lidd., London, England. Sanders & Evans, Toronto. Dandelle & Gauden, Bordeaux, France. Barton & Guestier, Bordeaux, France. Crosses & Blackwell, Icondon, England. J. Winer & Co., Hamilton, Ont. Reinu & Co., Bordeaux, France. Reinu & Co., Bordeaux, France. Perkins, Ince & Co., Toronto. Sanders & Evans, Toronto.	Crosse & Blackwell, London, England The Bole Drug Co., Winnipeg F. F. Dalley & Co., Hamilton Fratilie & Alfonas, Bordeaux, France Glazer Kohn, Chicago, U.S.A. Goldberg, Bowen & Co., San Francisco. Swift & Co., Chicago.	G. F. Sutton, Son & Co. Polson & Co., Kingston, Ont. Martin, Bole, Wynne & Co., Winning.
٢	Value.	8 0000 4 2000 4 2000 5 2000 5 2000 6 2000 7	100000000	828585	848
Cost.	Quan- tity.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	# : : : : : : : : : : : : : : : : : : :	1 pint. 2 btls. 2 btls. 1 pint. 1 pint. 1 pint.	2 btls. 1 pint.
Name and Address of Vander		District of Toronto.—A. E. Sanderson, Actiny Inspector.—Con. 28431 J. R. Byers, Oakville 28443 John Mack, J. James St., n., Hamilton. 28440 W. J. O'Brien, 94 ". 28447 H. W. Ralph, Dundas, Ont	District of London-T. Kid1, Inspector. 22401 Charles Nairn, Groderich. 22586 Charles Stephens, Collingwood. 22586 Jewry & Gregory 22414 John Garey, London, Ont. 22540 H. G. Lemon, Harrison. 22580 H. G. Lemon, Harrison. 22585 G. A. Woodhouse, Walkerton. 22585 W. A. McClean, Owen Sound, 22585 W. A. McClean, Owen Sound, 22592 Thomas McCarrol, Meaford.  District of Manifola—W. M. Conklin, Impector.	25574 K. McKenzie & Co., Winnipeg. 25575 Campbell Bros. & Wilson, Winnipeg. 25577 E. J. Gall, Winnipeg. 25578 Foley, Lack & Larson, Winnipeg. 25579 Johin, Marrin & Co. 25580 Hudson Bay Co.	25582 A. R. Christie 25583 The Gordon Mitchell Drug Co., Winnipeg 25594 J. G. Snider Drug Co., Winnipeg
or's Number.	Collect	2843 2445 2445	22401 22386 22386 22414 22386 22386 22387 22387 22387 22387	25574 25575 25577 25578 25579 25580 25581	25582 25583 25594
AndmuN.	Serial I	21-82-0		-88400-	& a O
Nature	Sample.	28:Olive Oil (salad).	22 Olive oil	11 Olive oil 11 " 12 Salad oil 12 Salad oil 12 Salad oil	13 Luces oil
Date	tion.	**************************************	Aug. 22 177 177 187 187 187 187 187 187 187 187	Sept. 11 11 12 2 4 1 1 1 1 2 2 4 1 1 2 2 4 1 1 2 2 4 1 1 2 2 4 1 1 2 2 4 1 1 2 2 4 1 1 2 2 4 1 1 1 1	13L

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				Manufactured in Cali- fornia.
			Rober Freres & Cie, Bordeaux, France. American Olive Co., Los Angels, California Weiland Brus., San Francisco. The Los Angels Olive Growers Ass'n. Bred H Rushy. And Son Service.	San Francisco. 10 75 Schroder, Schyler & Cie, Bordeaux, France 10 25 D. Bussel Filt, Marseille. 17 Not known 10 50 The California Packing Co., San Francisco
			588388	0 25 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	~ · · · · · · · · · · · · · · · · · · ·		3 btls. 1 pint. 3 btls. 3 btls.	3 btls. 1 pint. 1
District of Calgary - W. Flitcher, Inspector.	No samples have been received from this district.	Dustrict of British Columbia-E. B. Parkinson, Inspector.	29386 The West End Grocery Co., Victoria 29387 The Windsor Grocery Co. 29388 Dixie H. Ross & Co., Victoria 29389 Wasson & Hall, Victoria 29007 C. A. Welsh, New Westminster. 29011 F. Wright, Vancouver.	28972 J. F. May 26961 H. A. Edgett & Co., Vancouver. 26966 The Victoria Co-operative Mercantile Association, Victoria
			26967 26967 26968 26968 26968 28007	26972 26981 36982 26992
- 21 00	400-000		-88400	- × • • •
e ::			[6]	
Olive oil			16 Olive oil. 16 Salad oil. 16 Olive oil. 17 II	
			32995	55 55
			Aug	

TABLE II.—INSPECTION OF OLIVE OIL—(SALAD OIL).

								RESULTS OF ANALYSIS.	<u>ź.</u>
District.	dumZ laires	Collec- tor's Number	Refractive Index at 15-5°C.	Specific Gravity Iodine at 15.5 C.	Iodine	Nitric Acid Colour Test.	Halpen's Colour Test.	Name under which Sold.	Opinion.
Nova Scotia		27063 27064 27063 27083	1 4695 1 4693 1 4704 1 4704	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9.62	Green	No colour	79.6 Green No colour Olive oil Genuine olive oil.	Genuine olive oil.
	9 1- x 0 9	22222 22222 22222 22222 22222 22222 2222	11111 1568 1686 1686 1686 1686 1686 1686	8 1 6 6 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8					
New Brunswick	-0100+10	24056 24059 24068 24068 24071	1.4706 1.4706 1.4706 1.4707 1.4707	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					•
P. E. Island	ares5-88		1.4706 1.4706 1.4706 1.4706 1.4706 1.4706	0.921 0.921 0.912 0.915 0.916 0.916 0.916	98	Brown.	Red		Gotton seed oil.  Genuine olive oil.
Quebec.	4001-800-80T-		Namples 1.4735 1.4691 1.4691 1.4690 1.4739 1.4749 1.4749 1.4749 1.4749 1.4749 1.4749 1.4749 1.4749 1.4749 1.4749	Samples not received.  1.4752 104 105 105 105 105 105 105 105 105 105 105	80000000000000000000000000000000000000			Olive oil.	Cotton seed oil.  Genuine olive oil.  Genuine olive oil.  Genuine olive oil.  Cotton seed oil.  "

		n weed oil.		
Adulterated. Genuine oil. Adulterated. Adulterated. Adulterated.	Genuine olive oil. Cotton seed oil. Adulterated. Cotton seed oil. Genuine olive oil. Genuine elive oil.	Genuine office oil.  Adulterated with cotton seed oil. Is cotton seed oil. Adulterated. Genuine olive oil.	Is cotton seed oil. Genuine olive oil. Is cotton seed oil. Genuine olive oil. " " Cotton seed oil. Genuine olive oil.	Adulterated. Genuine olive oil.
Olive oil	Salad oil Olive oil See note in Table I. Olive oil Skalad oil	Olive oil	Salad oil Olive oil Salad oil Olive oil " Salad oil Olive oil Salad oil	
Red Red	No cour. Red Reddish. Red	Red .	Red Red No colour.	
Brown Brown	Green Brown Brownish Brown	Brown.	Brow Brow Yello Greet	Green
108 108 108 108 108 108 108 108 108 108	113 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	109 4	103-9 111 6 79-9 79-6 108-5	88.9 108.8 79.9
0.918 0.922 0.914 0.914 0.927 0.921 0.926	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.917 0.924 0.924 0.924 0.925 0.926	0.928 0.915 0.917 0.920 0.913 0.913 0.921 0.921	0.917 0.917 0.925 0.923 0.918 0.918
11438 11438 11438 11438 11438 11438 11438 11438	14733 114733 114725 114725 114745 114745 114733	1.4704 1.4703 1.4710 1.4710 1.4710 1.4736 1.4705 1.4705	1 4739 1 4705 1 4705 1 4709 1 4709 1 4704 1 4704	1.4708 1.4740 1.4741 1.4741 1.4741 1.4741 1.4741 1.4741
29038 29038 24032 24769 24769 24770	24113 24113 2682 2682 2682 2682 2682 2683 2683	28682 28682 28682 28682 28402 28402 28525 28525	2852 2852 2853 2853 2853 2853 28413 28413	
	00-805-004	. & r × ⊗ Ö − 01 € 4	va:-∞œ5 −884	001- 000-N
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St. Hyacinthe	Montreal	Kingston	. Toronto	London

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TAPLE II. -- INSPECTION OF OLIVE OIL (SALAD OIL) -- Concluded.